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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/558,233	04/26/2000	Mark S. Ortiz	3001-0039	9714

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EXAMINER

RAO, SHEELA S

ART UNIT	PAPER NUMBER
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2125

DATE MAILED: 10/03/2003

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/558,233

Applicant(s)

ORTIZ ET AL.

Examiner

Sheela Rao

Art Unit

2125

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's amendment filed on July 17, 2003 has been entered and considered.
2. Claims 1, 3, and 21 have been amended and claims 27-29 have been newly added. Claims 1-29 are pending and presented for examination.

Response to Amendment and Arguments

3. The objection made to the drawings as not showing every feature of the invention as claimed is ***withdrawn*** in light of the amendment.
4. The objection made to the Specification regarding the five (5) co-pending applications having been incorporated by reference is ***maintained***. Applicant's response to this objection is noted; however, until the copies and serial numbers of the co-pending applications are submitted the objection remains.
5. The rejection of claims 7-15, 18-20, and 24-26 under 35 USC §112, first paragraph, is ***withdrawn*** in light of the explanations given in the amendment.
6. The rejection of claim 1 under 35 USC §112, second paragraph, is ***withdrawn*** in light of the amendments made to claim 1.
7. The rejection of claims 1-6, 16-17, and 21-23 under 35 USC §103(a) as being unpatentable over Brian (USPN 4,005,349) in view of Prucher (USPN 4,633,148) is ***maintained*** and stated below.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brian (USPN 4,005,349) in view of Prucher (USPN 4,633,148).

Brian teaches of a control system for a work-handling apparatus within a manufacturing environment. The conveying apparatus utilizes independent movable carriages along an aligned series. The patented invention discloses the work carriages as being mounted on rails or tracks that extend along a series of treating stations.

The limitations of the instant invention are taught by the reference of prior art with regard to claims 1 and 27-29 by the use of the independent movable carriages, a plurality of active elements to produce movement, a controller for controlling the activation of the elements, and a tool for performing the manufacturing operation as taught in column 9: lines 59, et seq. The tool as used by Brian is taught to be an electrochemical plating apparatus, see column 10: line 20. Brian also teaches the plurality of rows of switching sensors at column 10: lines 37-44 and column 11: lines 5-8, with regard to figures 5-8. The switching sensors of the patented invention are used to signal based on the location or position of the assemblies.

Brian teaches the path of the carriages within the conveyor apparatus to be fixed but does not specify the path to be curvilinear, as per claim 2. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a curvilinear path so as to enable a more efficient and flexible transport means.

The association of a "first reactive element" with each of the carriages as in instant claim 3 is shown by the patented invention by driving each of the carriages with a horizontal drive motor, see column 10: lines 65-68.

The motion parameters of instant claim 4 to be one of force, acceleration, velocity, direction, position, torque, or jerk, is taught to be position, direction, and acceleration among others in the system of the patented invention. See column 10: lines 56-58.

The composition of the first active elements being electrically conductive coils to establish electromagnetic field for production of movement provided by linear motors is not taught or suggested by the patented invention to Brian. However, the reference of prior art to Prucher teaches the use of a system that employs a plurality of linear induction motors positioned along a track. The track as used by

Prucher carries a plurality of carriers or carriages. As a carrier or carriage passes along the track, a reaction plate or reactive element that is affixed to the carrier passes over the stators of the linear induction motors. The interaction between the plate and the electromagnetic field generated within the motors results in a thrust that propels the carrier along the track. Thereby, satisfying the limitations of instant claim 5. See column 3: lines 30-55. As per the limitations of instant claim 6, wherein the controller is set to control the enablement of the coils as a function of the location of each carriage so that each carriage is independently controlled, Prucher teaches this by positioning the motors to provide continuous electromagnetic contact with the reaction plate or reactive element. As the carrier or carriage leaves the command of one linear motor, it enters the charge of a subsequent motor.

With regard to the use of a multiplexer as per instant claim 16, see figures 5, 6, 7, and 40 of the Brian reference wherein switches are depicted as used.

Instant claims 7-15, 18-20, and 24-26 are directed to one or more additional paths, carriages, tools, or active elements. The reference of prior art to Brian does not specifically teach or suggest the use of second assemblies or carriages or tools as claimed by the instant invention. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included a plurality of assemblies, paths, carriages, tools, and etc. so as to enable a faster and more efficient system of manufacturing.

Brian teaches the independent movement of the carriages as in instant claim 17 as stated above with regard to instant claim 1. See column 9: line 59.

The limitations of instant claims 21-23 are rejected under the same basis as set forth above with regard to claims 1-4. Claims 21-23 claim the method used for the system of claims 1-4.

For the reasons stated above, the limitations of the claimed invention is taught or suggested by the prior arts of record; thereby, rendering the instant claims unpatentable.

10. Applicant's arguments filed July 17, 2003 have been fully considered but they are not persuasive. The issues raised and presented by the Applicant have been addressed above.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheela Rao whose telephone number is (703) 305-9766. The examiner can normally be reached Tuesday - Thursday from 9:00 am to 3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard, can be reached on (703) 308-0538.

Any response to this action should be mailed to:

**Commissioner of Patents and Trademarks
Washington, D.C. 20231**

or faxed to:


(703) 746-7238 for After-Final Communications

(703) 746-7239 for Official Communications

**(703) 746-7240 for Status Inquiries of Draft
Communications**

**Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA, Sixth Floor (Receptionist).**

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.


Sheela S. Rao
October 1, 2003



**LEO PICARD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100**